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5 October 2005

Richard A. Mustico, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Central Remedial Action, 12th Floor
625 Broadway
Albany, New York 12233-7016

Re: Supplemental PSA Work Plan – Revised 5 October 2005
Crouse-Hinds Facility, Syracuse, NY
Site No. 7-34-049
Delta Project No. 0310025P

Dear Mr. Mustico:

On behalf of Cooper Industries, LLC (Cooper), Delta Environmental Consultants, Inc. (Delta) is presenting New York State Department of Environmental Conservation (NYSDEC) with this *Revised* Supplemental Work Plan to address recommendations presented in the 29 September Preliminary Site Assessment (PSA) Report; comments presented in NYSDEC's 13 June 2005 letter commenting on the PSA report; and verbal comments from NYSDEC on 3 October 2005. The purpose of this supplemental field work is to generate additional data that can be used to determine if onsite conditions are adversely impacting either Ley Creek or Onondaga Lake. The outcome of this evaluation will determine whether any Interim Remedial Measures (IRMs) are necessary to protect the creek or the lake.

SCOPE OF WORK

Proposed additional work at the Site will be conducted as per the procedures detailed in the NYSDEC approved PSA Work Plan dated 9 January 2004, and modifications presented in Cooper's response to NYSDEC's comments letter dated 28 April 2004. Supplemental investigation tasks, which are proposed to be conducted in fall 2005, are detailed below.

Task 1: Wetland Delineation

Wetland delineation will be conducted at appropriate locations across the Site in an effort to define the extent of wetlands, if any, which may be located onsite. Wetland delineation tasks will include assembling and reviewing existing data (maps, soil survey, and air photographs) regarding wetlands and wetland features and conducting field sampling activities to verify Site conditions. Field sampling will be conducted to collect data regarding vegetation, soils, and hydrology according to the criteria set forth in the 1987 Corps of Engineers *Wetlands Delineation Manual, Classification of Wetlands and Deepwater*

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Habitats of the United States, and the 1995 NYSDEC *Freshwater Wetlands Delineation Manual*. Wetlands identified in the field and in reference sources will be flagged and a surveyor will locate these areas and plot the wetland boundaries on a site map. A delineation report describing the delineation procedure and characteristics of wetlands located onsite, if any, will be prepared and included in an amended PSA Report

Task 2: Topographic Survey

A topographic survey of the Site will be conducted so that the waste mass for each landfill can be estimated, so surface water flow paths across each landfill can be confirmed, and so that topographic conditions can be established. Delineation of the fill boundaries, drainage features, and boundary with Ley Creek along the western boundary of the south landfill will also be performed as part of this task.

Task 3: Test Pit Excavations

Test pits will be advanced along the perimeter of the north and south landfills (at intervals of approximately 200 feet) to delineate the extent of fill materials at both landfills and to document the nature of fill and underlying soil. Test pits will be advanced to the base of the fill material provided that this can be accomplished safely and within the limits of the equipment. Test pit excavation will not extend beyond the known property boundaries. Delta's on-site geologist will log all test pits in detail. Soil and fill material exposed at each test pit will be placed in a sealed container pending field screening. After a period of approximately 10 minutes the headspace of the sampling container will be scanned with a photonization detector (PID) to screen for the potential presence of VOCs. Samples will then be selected for analysis based on field screening results (PID readings), visual observations of materials, odors, and staining. Selected samples (an average of one sample per two test pits up to a total of 19 soil samples and 1 duplicate) will be containerized and submitted for laboratory analysis. Excavated material will be placed back into the excavation upon completion unless grossly contaminated. If materials are grossly contaminated they will be staged, and covered with plastic pending proper management. The limits of each test pit, along with the fill boundary, and the location of each soil sample will be marked with stakes to allow for surveying.

Soil samples will be analyzed for VOCs (USEPA Method 8260), SVOCs (USEPA Method 8270), and limited metals (arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, and zinc) by a NYSDOH ELAP-certified laboratory that participates in the contract laboratory program (CLP). Laboratory analytical procedures will adhere to NYS ASP 2000 methodologies and protocols and analytical results will be reported using NYSDEC ASP 2000 Category B deliverables. Data will be validated by a NYSDEC-approved data validation chemist and a Data Usability Summary Report (DUSR) will be prepared.

Task 4: Monitoring Abandonment, Installation, and Development

Monitoring Well Abandonment/Reinstallation

Due to concerns regarding the condition of well seals in MW-5, this well will be abandoned and then reinstalled within approximately 15 feet of its former location. The well will be abandoned by over drilling with hollow stem augers (HSA) and pressure grouting the borehole from bottom to grade while the augers are withdrawn from the borehole. Abandonment will be conducted in accordance with generally accepted well abandonment guidance established by NYSDEC.

Monitoring Well Installation

Four additional monitoring wells will be installed at the Site to supplement the existing monitoring well network (Figure 1). A shallow and deep well pair will be installed along the north boundary of the north landfill to supplement groundwater flow data in an area where there is limited hydrogeologic coverage. Two shallow wells will also be installed in the central area of the north landfill to establish groundwater conditions in this area of the site where shallow groundwater flow data is not available.

The borings will be drilled using HSA equipment and all wells will be constructed in accordance with NYSDEC protocol under the supervision of Delta's on-site geologist. Soil samples will be logged by a geologist and field screened with a PID to monitor for the potential presence of VOC vapors. Continuous split-spoon soil samples will be collected at the deep boring of the proposed well pair and at the two shallow well borings for the unpaired wells. Split spoon samples will not be collected at the location of MW-5, as this well location has been logged in the past.

Each of the monitoring wells will be constructed of two-inch-diameter PVC riser and ten feet of 0.01-inch slotted PVC well screen. The well screen in shallow wells will be installed to straddle the shallow water table. The well screen in the deep wells will be installed in the sand and gravel unit and the actual depth will be dependent on field observations during drilling.

A sand pack will be installed around the well screen in each well and will extend one to two feet above the top of the well screen. A one to two foot thick bentonite pellet seal will be placed above the sand pack and cement/bentonite grout will be utilized to backfill the remainder of the well annulus. The wells will be completed with a steel protective casing. Following installation, reference points will be marked on the top of the PVC at each well location to allow for surveying. All soil cuttings will be staged on, and covered with, plastic sheeting pending proper management.

Monitoring Well Development

Well development will begin no sooner than 24 hours after final completion of each monitoring well. Low-flow purging and development techniques will be used to develop each of the newly installed monitoring wells. Each well will be developed until the turbidity of the water is below 50 NTU, and/or field parameters (pH, conductivity, and temperature) stabilize. Development water from the wells will be checked periodically for the presence of a sheen or free product. Development water will be containerized pending proper management.

Task 5: Groundwater Sampling

Groundwater sampling of all onsite wells (newly installed and previously existing) will be conducted no sooner than one week after final development of each of the newly installed monitoring wells (total of 4 wells). Each monitoring well will be purged a minimum of three well volumes prior to sampling. Wells will be purged using low-flow purging techniques. Purge water will be containerized pending proper management.

Following purging, groundwater samples will be collected directly from low flow tubing. Field parameters (pH, temperature, conductivity, dissolved oxygen, oxidation-reduction potential (ORP), and turbidity) and groundwater elevation data will be collected from each monitoring well prior to purging (water level measurement) and during sampling (field parameters).

Groundwater samples will be analyzed for VOCs (USEPA Method 8260), SVOCs (USEPA Method 8270), limited metals (cadmium, chromium, lead, selenium and zinc), and phenols by a NYSDOH ELAP-certified laboratory that participates in the CLP. Laboratory analytical procedures will adhere to NYS ASP 2000 methodologies and protocols and analytical results will be reported using NYSDEC ASP 2000 Category B deliverables. Data will be validated by a NYSDEC-approved data validation chemist and a Data Usability Summary Report (DUSR) will be prepared.

Task 6: Monitoring Well MW-6A Area Evaluation

A total of approximately *four* temporary observation wells (*upgradient*) and *two* test pits (*downgradient*) will be installed in the area surrounding monitoring well MW-6A in an effort to determine the source and extent of free floating product, which has been observed in this well during the 2004 PSA and previous site investigation activities. Observation wells will be installed in the area around well MW-6A at distances of approximately 100 feet on center using HSA drilling techniques. Soil samples will be collected *continuously, logged, and field screened with a PID* during boring installation. Observation wells will be installed and developed per the details presented in Task 4 (see above). Following installation the wells will be checked for the accumulation of free product on a monthly basis for a period of 3 months. Following installation, reference points will be marked on the top of the PVC at each well location to allow for surveying. All soil cuttings will be staged on, and covered with, plastic sheeting pending proper management.

Task 7: Surface Water and Sediment Sampling

A total of ten surface water and sediment samples will be collected from areas of open water and drainage ditches, which are located on the east side of the north and south landfills to assess potential impacts to surface waters and sediments in these areas (Figure 1). The location of each sampling point will be based on field observations and availability of surface water and sediment for sample collection purposes. Once the locations have been established, a surface water sample will be collected at each location followed by sediment sample collection. Samples will be collected from the downstream locations first, then progressively upstream, to minimize cross-contamination. The location of each surface water/sediment sample will be marked with stakes to allow for surveying.

Surface water samples will be analyzed for VOCs (USEPA Method 8260), SVOCs base (USEPA Method 8270), limited metals (cadmium, chromium, lead, nickel, zinc, magnesium, and calcium), and phenols.

Sediment samples will be analyzed for VOCs (USEPA Method 8260), SVOCs (USEPA Method 8270), TAL metals, PCBs (USEPA Method 8080) and Total Organic Carbon (Lloyd Kahn method).

Sample analysis will be performed by a NYSDOH ELAP-certified laboratory that participates in the CLP. Laboratory analytical procedures will adhere to NYS ASP 2000 methodologies and protocols and analytical results will be reported using NYSDEC ASP 2000 Category B deliverables. Data will be validated by a NYSDEC-approved data validation chemist and a Data Usability Summary Report (DUSR) will be prepared.

Task 8: Reporting

Following completion of the proposed additional tasks, data generated from these tasks will be incorporated into an amended PSA Report. The amended report will also address comments

received from NYSDEC (dated 13 June 2005) regarding the PSA Report dated 29 September 2004.

SCHEDULE

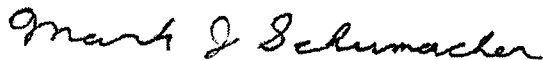
Summarized below is a tentative schedule for activities associated with this Supplemental Work Plan.

<u>Task</u>	<u>Estimated Completion Date</u>
Submittal of Supplemental Work Plan to NYSDEC	September 2005
NYSDEC Review of Supplemental Work Plan	October 2005
Response to NYSDEC Comments	October 2005
NYSDEC Approval of Supplemental Work Plan	October 2005
Begin Fieldwork	November 2005
Complete Fieldwork	January 2006
Submit PSA Report to NYSDEC	March 2006
NYSDEC Provides Comments to Cooper	May 2006
Response to NYSDEC Comments	May 2006
Finalize PSA Report	June 2006

Note: This schedule is estimated, and NYSDEC review durations are assumed.

Cooper and Delta appreciate the opportunity to present this Supplemental Work Plan and would request a timely response so that we may implement the proposed scope of work later this fall while weather conditions are favorable. If you have any questions or comments, feel free to contact me at (315) 445-0224 or by email (mschumacher@deltaenv.com).

Sincerely,
DELTA ENVIRONMENTAL CONSULTANTS, INC.



Mark J. Schumacher
Project Manager

Cc: Mr. Michael O'Brien, Cooper

